## IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF DELAWARE

BOSTON SCIENTIFIC CORPORATION and BOSTON SCIENTIFIC SCIMED, INC.,	)	REDACTED PUBLIC VERSION
Plaintiffs,	)	
$\mathbf{v}$ .	)	C.A. No. 05-768-SLR
CONOR MEDSYSTEMS, INC.,	)	
Defendant.	)	

## CONOR MEDSYSTEMS' OPENING MARKMAN BRIEF ON CONSTRUCTION OF TERMS IN THE JANG '021 PATENT

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#### I. INTRODUCTION

Defendant Conor Medsystems, Inc. ("Conor") submits this opening brief in support of its proposed claim construction for Dr. David Jang's U.S. Patent No. 5,922,021 (the "'021 patent") (Ex. A hereto).

The parties agree on the construction of most claim terms. The only disputes involve two sets of claim terms.

The first set of terms requiring construction are the two "column" limitations, i.e., the limitations reciting an "expansion column" and a "connecting strut column." The U.S. District Court for the Central District of California has construed these terms in a case brought by Dr. Jang against BSC, and adopted the construction that BSC advocated in that case. The construction adopted by the California court is consistent with the intrinsic evidence. Indeed, in this case, BSC's expert endorses the California court's construction as correct and as how "one of ordinary skill in the art would have interpreted Claim 35 of the Jang '021 patent." Nonetheless, BSC now tries to abandon the construction that it advocated and obtained in the California case, and that its expert endorses here. It should not be permitted to do so.

The second phrase requiring construction is the "wherein" clause, which appears in both of the independent claims of the '021 patent (claims 1 and 23). This "wherein" clause was construed by this Court in Cordis Corp. v. Boston Scientific Corp., C.A. No. 03-027-SLR (the "03-027 case"). However, recent events cast serious doubt on that construction. These recent events include Dr. Jang's admission, in this case, that he chose not to seek patent protection on his 180 degree out-of-phase designs and intentionally "discarded" them, even though BSC's proposed claim construction would cover such designs. They also include BSC's admission that Dr. Jang's "invention" is a stent with expansion strut pairs that are "offset," rather than aligned as in prior art stents that have a 180 degree out-of-phase design.

These recent developments – together with the intrinsic evidence – require a different construction than the one that was adopted (at BSC's urging) in the 03-027 action. Under the correct construction, the "wherein" clause should be given the same meaning in independent claim 23 as in independent claim 1. It should be construed to require that the first expansion struts of the (distally coupled) expansion strut pairs of the first expansion column be circumferentially offset from the first expansion struts of the (proximally coupled) expansion strut pairs of the second expansion column, thereby limiting the claim to stents with offset connected strut pairs and excluding stents with 180 degree out-of-phase designs.

#### II. THE TWO "COLUMN" LIMITATIONS ("EXPANSION COLUMNS" AND "CONNECTING STRUT COLUMNS") - THE "SOLELY" REQUIREMENT

Conor proposes that the terms "expansion column" and "connecting column" be construed as follows:

> An "expansion column" is "a tubular structure formed solely by a plurality of expansion strut pairs arranged in a column along the circumference of the stent."

A "connecting strut column" is "a column formed solely of a plurality of connecting struts unattached to each other and arranged along the circumference of the stent."

Conor's proposed construction is the same construction that BSC advocated and obtained in a suit brought by Dr. Jang against BSC in the Central District of California, captioned Jang v. Boston Scientific Corporation, Case No. ED CV 05-00426 VAP (C.D. Cal.) (the "California case").

### A. The Construction Conor Advocates is the Same Construction that BSC Advocated and Obtained in Another Case

In the California case, Dr. Jang alleged that the '021 patent covers BSC's Express stent, thereby entitling him to royalties on sales of the Express. To avoid liability to Dr. Jang. BSC advocated a claim construction that requires the "expansion columns" to be formed

"solely" of expansion strut pairs and requires the "connecting strut columns" to be formed "solely" of connecting struts. Thus, BSC advocated the following construction for these terms:

> "expansion column": "a tubular structure formed solely by a plurality of expansion strut pairs arranged in a column along the circumference of the stent." (Ex. C at 3) (emphasis added).

> "connecting strut column": "[a column] formed solely of a plurality of connecting struts unattached to each other and arranged in a column along the circumference of the stent." (Id.) (emphasis added).

The court in California advocated the construction that BSC proposed in that case. Conor's proposed construction is the same construction that BSC advocated and obtained in the California case.

#### В. The Intrinsic Evidence Supports Conor's Construction (Which Was BSC's Construction in the California Case)

Phillips v. AWH Corp., 415 F.3d 1303 (Fed. Cir. 2005) (en banc), sets out the principles governing claim construction. Phillips "emphasize[s] the importance of the specification in claim construction." Id. at 1315. It states that "the specification is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term." Id., quoting Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996). As the Federal Circuit stated, "the interpretation to be given a term can only be determined and confirmed with a full understanding of what the inventors actually invented and intended to envelop with the claim." Id. at 1316, quoting Renishaw PLC v. Marposs Societa per Azioni, 158 F.3d 1243, 1250 (Fed. Cir. 1998). "The construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction." Id., quoting Renishaw, 158 F.3d at 1250.

The construction that the California court adopted at BSC's urging is consistent with the intrinsic evidence from the '021 specification. The specification describes the

"expansion columns" as made up only of "expansion strut pairs" (formed of two "expansion struts" coupled by a "joining strut") and describes the "connecting strut columns" as made up only of "connecting struts." Thus, the specification states that "[e]xpansion columns 24 are formed from a series of expansion struts 28, and joining struts 30." '021 patent at 5:52-53. "Each expansion column 24 contains a plurality, typically eight to twenty, twenty to sixty, or larger of expansion struts 28." Id. at 6:6-8. The specification does not describe any structure other than the "expansion strut pairs" as being part of the "expansion columns."

Similarly, the specification describes the "connecting strut columns" as being made up only of a plurality of connecting struts (id. at 6:13-18):

> Connecting struts 38 connect adjacent expansion columns 24 forming a series of interspersed connecting strut columns 26 each extending around the circumference of stent 10. Each connecting strut 38 joins a pair of expansion struts 28 in an expansion column 24 to an adjacent pair of expansion struts 28 in an adjacent expansion column 24.

The specification does not describe any structure other than "connecting struts" as being part of the "connecting strut columns." As BSC argued in the California case, "there is not a single depiction of the Jang stent that shows anything but 'connecting struts' in the claimed 'connecting strut columns." Ex. D at 30.

Under Phillips and its progeny, the "column" limitations should be construed to mean the kinds of columns that Jang described in his specification, i.e., an "expansion column" is a tubular structure formed solely of expansion strut pairs, and a "connecting strut" column is a column formed solely of connecting struts unattached to each other and arranged along the circumference of the stent. As BSC stated in the California case:

> Nystrom v. Trex Co., 424 F.3d 1126, 1142 (Fed. Cir. 2005), is instructive. In *Nystrom*, the patent concerned a particular kind of patio or deck structure, and the claims recited a "board" as part of that structure. Although the dictionary definition of "board" arguably encompassed "boards" made of varying materials, and although the patentee never

explicitly stated that his claims did not cover boards of other materials, the Federal Circuit nonetheless emphasized the fact that the only "board" described and disclosed in the patents was a board cut from a wooden log:

Nystrom consistently used the term "board" to refer to wood cut from a log. Although there was no clear disavowal of claim scope, there was nothing in the intrinsic record to support the conclusion that a skilled artisan would have construed the term "board" more broadly than a piece of construction material made from wood cut from a log.

Ex. D at 28, quoting Nystrom v. Trex Co., 424 F.3d 1136, 1145 (Fed. Cir. 2005); see also Old Town Canoe Co. v. Confluence Holdings Corp., 448 F.3d 1309, 1316-17 (Fed. Cir. 2006); Abraxis Bioscience, Inc. v. Mayne Pharma, Inc., 467 F.3d 1370, 1378 (Fed. Cir. 2006).

As BSC argued in the California case, Phillips and its progeny require a construction of "expansion columns" as formed "solely" of "expansion strut pairs" and require a construction of "connecting strut columns" as formed "solely" of connecting struts."

### C. BSC's Expert in This Case Has Endorsed the Correctness of the Construction Conor Advocates

The construction of the "column" limitations that Conor advocates was advocated by BSC in the California case and was adopted by the court in California. That construction also has been adopted by BSC's expert in this case, Prof. James Moore, as the correct construction of the "column" limitations.

In his expert report in this case (Ex. E), Prof. Moore included an exhibit (Exhibit D to his report), which set forth his views on how "one of ordinary skill in the art would have interpreted Claim 35 of the Jang '021 patent." Ex. E at 4. In that exhibit, Prof. Moore adopted the construction of the "column" limitations that BSC proposed and obtained in the California case as the correct construction of those terms. Thus, Prof. Moore adopted the following definition of "expansion column":

"expansion column": "a tubular structure formed solely by a plurality of expansion strut pairs arranged in a column along the circumference of the stent." (Jang v. Boston Scientific Corp., No. 05-426-VAP, at \*5-9 (C.D. Cal. Aug. 25, 2006).

(Ex. F hereto.) Prof. Moore adopted the following definition of "connecting strut column" (id.):

"connecting strut column": "a column formed solely of a plurality of connecting struts unattached to each other and arranged along the circumference of the [stent]." (Jang v. Boston Scientific Corp., No. 05-426-VAP, at \*5-9 (C.D. Cal. Aug. 25, 2006).

These constructions – advocated by BSC's expert as how "one of ordinary skill in the art would have interpreted Claim 35 of the Jang '021 patent," id. – are identical to the constructions that Conor asks this Court to adopt, and are identical to the constructions that BSC advocated and obtained in the California case. They should be adopted by this Court.

#### D. **BSC Cannot Run Away From the Construction** It Advocated and Obtained in the California Case

After obtaining a claim construction in California that requires the "expansion" columns" to be formed "solely" of expansion strut pairs and requires the "connecting strut columns" to be formed "solely" of connecting struts, BSC now asks this Court to adopt a different construction - one that would eliminate the "solely" requirement. But the California court's construction is correct and it is endorsed by BSC's expert here.

In any event, it is too late for BSC to change positions on this issue. The doctrine of judicial estoppel bars BSC from such a flip-flop. As the Federal Circuit has explained, the doctrine of judicial estoppel "prohibits a party from taking inconsistent positions in the same or related litigation. The underlying purpose of the doctrine is to "protect the integrity of the judicial process." Transclean Corp. v. Jiffy Lube Int'l, Inc., 474 F.3d 1298, 1307 (Fed. Cir. 2007) (citation omitted). The doctrine is applicable where, as here, "a party assumes a certain position in a legal proceeding, and succeeds in maintaining that position, [but] assume[s] a

contrary position [in another court] simply because his interests have changed." <u>Boler Co. v.</u>
Watson & Chalin Mfg., Inc., 372 F. Supp. 2d 1013, 1020 (N.D. Ohio 2004).

The doctrine of judicial estoppel is fully applicable to claim construction. "[T]he Federal Circuit has stated that a party may be judicially estopped from asserting clearly inconsistent positions on claim construction..." Transclean, 474 F.3d at 1307; see Boler, 372 F. Supp. 2d at 1020 (patentee was "judicially estopped" from disputing a claim construction that it had successfully advocated in another court); Cabot Safety Intermediate Corp. v. Howard S. Leight & Assocs., Inc., 992 F. Supp. 463, 466 (D. Mass. 1998) (same). Indeed, application of the doctrine is particularly appropriate on issues of claim construction since claim construction is a question of law. It would undermine the integrity of the process for the exact same claim language to have different meanings in different cases – especially where those different meanings are advocated seriatim by the same party. See Markman v. Westview Instruments, Inc., 517 U.S. 370, 390-391 (1996) (stressing "the importance of uniformity in the treatment of a given patent").

The Supreme Court has identified several "non-exclusive factors that guide a court's decision whether to apply judicial estoppel," Transclean, 474 F.3d at 1307:

(1) the party's later position must be "clearly inconsistent" with its earlier position; (2) the party must have succeeded in persuading a court to adopt [its] earlier position, thereby posing a "risk of inconsistent court determinations"; and (3) "the party seeking to assert an inconsistent position would derive an unfair advantage or impose an unfair detriment on the opposing party if not estopped."

<u>Id.</u>, quoting New Hampshire v. Maine, 532 U.S. 742, 750-51 (2001).

All of these factors are present here: <u>First</u>, BSC's position in this Court is "clearly inconsistent" with its position in the California case (<u>id.</u>) because the construction that BSC obtained in the California case includes the "solely" requirement whereas its construction in this

Court omits the "solely" requirement. Second, BSC "succeeded in persuading [the court in the California case] to adopt [its] earlier position" on construction of the "column" limitations, thereby posing a "risk of inconsistent court determinations" if this Court were to adopt a different construction. Id. Third, BSC would "derive an unfair advantage or impose an unfair detriment" if it were allowed to use one construction in the California case to avoid liability to Dr. Jang and then turn around and assert a different construction in this Court in trying to impose liability on Conor. Id. Judicial estoppel is intended to prevent this kind of abuse. See

Armstrong World Indus., Inc. v. Allibert, 1997 WL 793041, at \*19 (E.D. Pa. Nov. 26, 1997) (the doctrine ensures that litigants "do not gain an advantage in one proceeding by taking one position, and then obtaining an advantage in a concurrent or subsequent proceeding by adopting an inconsistent position").

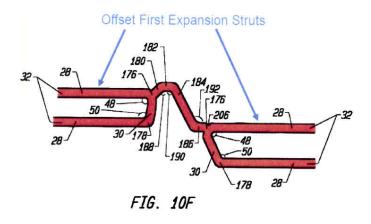
Judicial estoppel bars BSC from advocating and obtaining one claim construction in the California case (to avoid liability to Dr. Jang) and then seeking a different construction in this Court (in trying to obtain a finding of infringement against Conor) merely because its perceived interests have changed. Having persuaded the California court to adopt its constructions of the "column" limitations, BSC cannot avoid the application of the same claim construction here. See Boler, 372 F. Supp. 2d at 1020 (applying judicial estoppel on issues of claim construction); Cabot, 992 F. Supp. at 466 (same).

### III. THE "WHEREIN" CLAUSE

The other phrase that requires construction is the "wherein" clause. The "wherein" clause was added to <u>both</u> of the '021 patent's independent claims (claims 1 and 23) during prosecution, in response to an anticipation rejection based on Pinchasik. The "wherein" clause reads as follows:

.... wherein the *first expansion strut* of the first expansion strut pair in the first expansion column has a longitudinal axis offset from a longitudinal axis of the *first expansion strut* of the second expansion strut pair in the second expansion column.

The wherein clause limits the independent claims 1 and 23 to what Dr. Jang described as the "key" to his invention – a stent with connected strut pairs whose "first expansion struts" are offset from one another. According to Dr. Jang's patent application, his specification and the prosecution history, this was Dr. Jang's contribution to the art of stent design. He designed a series of stents formed from "expansion strut pairs" connected to one another in offset or "split level" fashion. A plurality of strut pairs formed expansion strut columns. This design was different from the classic 180 degree out-of-phase design in which the struts of connected strut pairs were collinear, that is, aligned with one another and facing in opposite direction. Dr. Jang illustrated his offset connected strut pairs in every illustration in the patent. In every illustration, the "first expansion struts" of the connected strut pairs are offset from one another:



'021 Patent, Fig. 10F

Precisely in accord with this description, Dr. Jang described his invention clearly in the California action: "The '021 patent discloses that a circumferential series of expansion strut pairs and joining struts form 'expansion columns.'... [E]ach connecting strut connects the *distal* end of one expansion strut pair to the *proximal* end of another expansion strut pair.

Moreover, connected expansion strut pairs do not share a common longitudinal axis; rather they are circumferentially offset." (Ex. G at 7-8).

Conor urges the Court to adopt the following construction of this clause, which recognizes the "key" of Dr. Jang's invention and the meaning of the wherein clause:

The terms in the "wherein" clause have the same meaning in claim 23 as in claim 1. This clause limits claim 23 to stents where the first expansion struts of the (distally coupled) expansion strut pairs of the first expansion column are circumferentially offset from the first expansion struts of the (proximally coupled) expansion strut pairs of the second expansion column, thereby limiting the claim to stents with offset connected strut pairs and excluding stents with 180 degree out-of-phase designs.

Conor recognizes that this Court adopted a different construction in the 03-027 case. See D.I. 334 in C.A. No. 03-027-SLR. The briefing in that case was truncated, however, because construction of terms in the Palmaz '762 patent, the Gray '406 patent and the Jang '021 patent were addressed in a single brief. Many other claim terms were in dispute and not all of the arguments presented were fully developed. Moreover, recent events – including Dr. Jang's deposition testimony in this case and admissions by BSC in the California case – raise serious doubts as to the correctness of that construction.

Taken together, the specification, the file history and the new evidence all yield the same conclusion – claim 23 of the '021 patent is limited to stents where connected expansion strut pairs have "first expansion struts" that are offset from one another, thereby excluding stents where connected expansion strut pairs are aligned, the classic 180 degree out-of-phase stent.

## A. On its Face, the Language of the "Wherein" Clause Presents an Ambiguity that Requires Construction

As the Court has already recognized, in the context of claim 23 the "wherein" clause is ambiguous and must be construed. As the prosecution history reveals, Dr. Jang added the "wherein" clause to both of his independent claims during prosecution in response to the

same rejection of both independent claims. The same "wherein" clause appears at the end of both independent claims. The "wherein" clause should have the same meaning in both independent claims.

In claim 1, the meaning of the "wherein" clause is unambiguous and we do not believe it is now disputed by BSC. The "wherein" clause requires that the "first expansion strut" of two identified "expansion strut pairs" be offset from each other. This captures Dr. Jang's interest in a stent with offset connected expansion strut pairs, since the "first expansion struts" in such pairs are offset from one another. Claim 1 describes all of the strut pairs in the first expansion column as "first expansion strut pairs" that are distally connected. It then identifies all of the strut pairs in the second expansion column as "second expansion strut pairs" that are proximally connected. According to claim 1, the first expansion strut pairs are connected to the second expansion strut pairs to form the stent. After describing the stent with this specificity, the "wherein" clause adds the requirement that the "first expansion strut" of the "first expansion strut"

pair" have a longitudinal axis offset from the "first expansion strut" of the "second expansion strut pair," precisely capturing Dr. Jang's invention. As BSC recognized in the California case, in claim 1 the "wherein" clause requires that the first struts of the connected pairs be circumferentially offset from one another. This limits the claim to Dr. Jang's split level design and excludes stents having a 180 degree out-of-phase design.



However, the same language is ambiguous in claim 23 and requires construction.

The "wherein" clause is identical in both claims (and based on the prosecution history should

have the same meaning in both claims). But undoubtedly through a drafting error, given the complexity of claim 23, the language of the "wherein" clause was transported whole, rather than modified to match the rest of the language of claim 23. Claim 23 devotes no fewer than 73 lines of text to meticulously identifying each of the "expansion struts" that make up the four "expansion strut pairs" in the two "expansion columns." As described in claim 23, two specific expansion struts – the "first expansion strut" and the "second expansion strut" – make up the "first expansion strut pair" in the "second expansion column" ('021 patent at 20:29); the "second expansion strut pair" is made up of the "second expansion strut" and the "third expansion strut" (id. at 20:29-34); and so on.

Under claim 23's detailed numbering scheme, the misalignment of the "wherein" clause with the rest of the claim is most clearly shown by comparing the nomenclature of the struts in the second expansion column. In claim 23, the only reference to a "first expansion strut" in the "second expansion column" is as part of the "first expansion strut pair." It is not part of the "second expansion strut pair," as required by the "wherein" clause. Instead, the "second expansion strut pair of claim 23 is made up of the "second expansion strut" and the "third expansion strut." Under the nomenclature of claim 23 there is no "first expansion strut of the second expansion strut pair in the second expansion column," the subject of the "wherein" clause. Rather, in the nomenclature of claim 23, "the first expansion strut" is part of the "first expansion strut pair." Indeed, although patent drafting rules require an antecedent basis elsewhere in the claim whenever the definite article "the" is used, there is no antecedent basis in claim 23 for the reference in the "wherein" clause to "the first expansion strut of the second expansion strut pair in the second expansion column."

The mismatch between the language of the "wherein" clause and the numbering scheme of claim 23 presents an ambiguity that requires construction. This Court has already recognized the presence of that ambiguity. In its earlier claim construction, the Court did not focus on identifying which strut pairs are referred to in the "wherein" clause. Rather, it construed the reference to the "the first expansion strut of the second expansion strut pair" to be a reference to the "second expansion strut in the second column" without reference to the identity of the strut pairs. D.I. 334 at 6 in the 03-027 case. That construction gives the "wherein" clause a different meaning in claim 1 than it has in claim 23 and gives it no role in defining the invention that Dr. Jang claimed – a stent composed of offset connected strut pairs. In light of the totality of the evidence, including the new evidence presented below, we respectfully submit the Court's earlier construction is incorrect.

In construing the "wherein" clause, the court must apply the "presumption that the same terms appearing in different portions of the claims should be given the same meaning unless it is clear from the specification and prosecution history that the terms have different meanings at different portions of the claims." Fin Control Sys. Pty., Ltd. v. OAM, Inc., 265 F.3d 1311, 1318 (Fed. Cir. 2001). See also, e.g., PODS, Inc. v. Porta Stor, Inc., \_\_ F.3d \_\_, 2007 WL 1226740, at \*4 (Fed. Cir. Apr. 27, 2007); Phillips, 415 F.3d at 1314. As set forth below, the specification and prosecution history confirm the presumption here. The proper construction is to give the "wherein" clause the same meaning in claims 1 and 23.

So construed, its meaning is clear. In claim 1, all of the strut pairs in the first expansion column are distally joined and have a "first expansion strut." The wherein clause requires that the longitudinal axis of these first expansion struts be offset from the longitudinal axis of the "first expansion strut of the second expansion strut pair in the second expansion

column." In the second expansion column, all of the strut pairs are second expansion strut pairs which are proximally joined and which have a "first expansion strut." As BSC has conceded in litigation in California, that means that the "first expansion struts" in each of the two columns are "circumferentially offset" from each other. Ex. D at 37-38. These same meanings must apply to the "wherein" clause in claim 23. This would limit claim 23 (like claim 1) to stents where the first expansion struts of the (distally coupled) expansion strut pairs of the first expansion column are circumferentially offset from the first expansion struts of the (proximally coupled) expansion strut pairs of the second expansion column.

Since these struts pairs are also required by claim 1 to be connected to one another, the offset requirement limits the claim to stents with offset connected strut pairs, exactly what the intrinsic evidence shows to be Jang's claimed invention. At the same time, the claim excludes designs in which the "first expansion struts" of connected struts pairs are aligned – stents with 180 degree out-of-phase designs.

## B. The Intrinsic Evidence

Review of the intrinsic evidence confirms the propriety of applying the presumption that the same terms in different claims should have the same meaning.

1. Jang Describes "Split Level" Connections Between Offset Pairs As "the Key" to the Flexibility of "the Invention"

"In general, the scope and outer boundary of claims is set by the patentee's description of [the] invention." On Demand Machine Corp. v. Ingram Indus., Inc., 442 F.3d 1331, 1338 (Fed. Cir. 2006), citing Phillips, 415 F.3d at 1313-14. Under Phillips, the proper claim construction should reflect "what the inventor[] actually invented and intended to envelop with the claim." Id. at 1316, quoting Renishaw, 158 F.3d at 1250. "The construction that stays

true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction." <u>Id.</u>, quoting Renishaw, 158 F.3d at 1250.

Here, the construction that Conor advocates is consistent with Dr. Jang's own description of "the invention" in the specification. Dr. Jang invented a stent characterized by offset connected strut pairs, in which the "first expansion struts" of each connected pair were offset from one another. The "wherein" clause, properly construed, limits his invention to such designs.

Dr. Jang's first written record of his invention is contained in his provisional application, filed on April 26, 1996. The '021 specification "incorporate[s] by reference" the disclosure of the provisional application. '021 patent at 1:6-8. Such "material incorporated by reference 'is effectively part of the host document as if it were explicitly contained therein.'"

<u>Liebel-Flarsheim Co. v. Medrad, Inc.</u>, 481 F.3d 1371, 1382 n.3 (Fed. Cir. 2007), quoting

<u>Advanced Display Sys., Inc. v. Kent State Univ.</u>, 212 F.3d 1272, 1282 (Fed. Cir. 2000).

As explained in the provisional application, the main problem Dr. Jang set out to solve was existing stents' "lack of flexibility." JFH 8.<sup>1</sup> "[T]he new stents of [the] present invention [were] designed to be more flexible" than existing stents. <u>Id</u>. Dr. Jang started with a stent composed of "expansion columns" made up of "expansion strut pairs," and "connecting strut columns" made of "connecting struts." That was not new. As BSC explained in the California action, these features were the basic "building blocks" of stent design. Ex. H at 72:17-73:23.

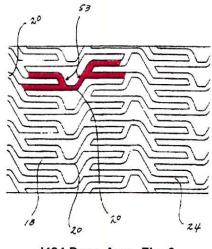
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<sup>&</sup>lt;sup>1</sup> Citations to "JFH \_\_" refer to pages from the file history of the '021 patent, which is attached hereto as Exhibit B.

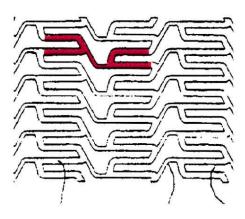
What made the stent of Dr. Jang's invention different from prior stents and provided the flexibility that Dr. Jang sought to achieve was a design in which connectors link expansion struts pairs in adjacent columns that are positioned "one [split] level above or below" each other. JFH 13. In this way, the first expansion struts of each connected strut pair were offset from each other. The provisional application describes this "split level" connection scheme as follows (JFH 11):

The[] paralleling horizontal struts are in pairs of two, which are serially connected to a single strut that has a slanted angle and, in turn, the single slant-angled strut is again serially connected to a pair of next column of paralleling horizontal struts one split level above or below.<sup>2</sup> (Emphasis added).

Every embodiment in the provisional application has this "split level" design, in which a strut pair in one column is connected to a strut pair in the next column "one split level above or below." Every embodiment features connected strut pairs whose first expansion struts were offset from each other.







'484 Prov. App., Fig. 5

<sup>&</sup>lt;sup>2</sup> The '021 specification uses somewhat different terminology than the provisional application, e.g., it uses the term "expansion struts" in referring to what the provisional application calls "paralleling horizontal struts" and uses the term "connecting strut" in referring to what the provisional application calls a "slant angle"/"serial" strut.

The provisional application describes this "split level" connection as the "the key to the flexibility of this stent of [the] present invention" (JFH 13-14):

> The flexibility of the stent of [the] present invention owes to the unique parallel-to-serially interconnecting struts and frame design. A pair of two paralleling struts are inter-linked to a single slant-angled strut that is connected to the next unit of a pair of paralleling struts one level above or below the previously pair of paralleling strut unit .... This specially designed serial strut inter-connecting two split level parallel strut units is the key to the flexibility of this stent of [the] present invention. (Emphasis added).

See also id. at JFH 22-23 (stating that connecting "two separate pairs of parallel struts 18 which are located at a level split from each other ... [is] the key to the flexibility of the stent 10 ....").

The provisional application repeatedly calls attention to this "split level" connection between offset strut pairs in adjacent columns. E.g.:

- JFH 24 (describing the Fig. 3 embodiment as having "[a] pair of two parallel struts 18 at one level [that] are serially interconnected to the next pair of two parallel struts at another *split level* by a single serial strut 20 ...."):
- JFH 25 ("the *split level interconnection* of the parallel struts 18 by the serial struts 20 ... are clearly illustrated" in Fig. 3);
- JFH 26 ("serial struts 20 [in Fig. 4] are connecting [to] a pair of parallel struts 18 at a split level.").

None of the figures in the provisional application depicts "expansion strut pairs" in adjacent expansion columns that are aligned and face in opposite directions, as is the case with 180 degree out-of-phase designs.

Dr. Jang's description in the provisional application of a "split level" design as "the key" to the flexibility of the stent of "[the] present invention" (JFH 13) deserves particular weight in claim construction. Dr. Jang was describing "[the] present invention" - not merely a particular embodiment. The proper claim construction should reflect "what the inventor[] actually invented and intended to envelop with the claim." Phillips, 415 F.3d at 1316, quoting

Renishaw, 158 F.3d at 1250. Conor's construction, which requires offset "first expansion struts" and expansion strut pairs, is the construction that most "naturally aligns" (Id., quoting Renishaw, 158 F.3d at 1250) with Jang's description of a "split level" design as "the key" to flexibility of "[the] present invention." JFH 13.

# 2. Jang Discloses "Split Level" Connections Between Offset Pairs in Every Figure of the Specification

The '021 specification uses somewhat different terminology,<sup>3</sup> but shares the basic features of the provisional application. As with the provisional application, every figure in the '021 specification shows a "split level" connection in which the "first expansion struts" of every connected strut pair are offset from each other. The '021 specification uses the phrase "circumferentially offset expansion strut pairs," much closer to the language that eventually appears in the wherein clause, to describe this "split level" connection scheme. See, e.g.,

- '021 patent at 11:36-42 (describing the Fig. 8A embodiment as having a "four piece slanted connecting strut 38 [that] is used to couple the corner an expansion strut pair 32 in one expansion column 24 to the joining strut 30 of a *circumferentially offset expansion strut pair* 32 in an adjacent expansion column 24");
- Id. at 12:29-32 (describing the Fig. 8G embodiment as having a connector that links an expansion strut pair to a "circumferentially offset expansion strut pair 32 of an adjacent expansion column 24");
- <u>Id.</u> at 13:5-10 (describing Figs. 9A-G as having a "three-piece slanted connecting strut 38 [that] is used to couple the joining strut 30 of an expansion strut pair 32 in one expansion column 24 to the joining strut 30 of a *circumferentially offset expansion strut pair* 32 in an adjacent expansion column 24");
- <u>Id.</u> at 14:59-64 (describing Figs. 10A-F as having a "rounded loop connecting strut 38 which joins two *circumferentially offset expansion strut pair[s]* 32 in adjacent expansion columns").

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<sup>&</sup>lt;sup>3</sup> See footnote 2 supra.